DENISON MINES LIMITED

ANNUAL REPORT

1961

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1961 ANNUAL REPORT

URANIUM IN COSMOS

The vast sweep of the uranium atom across
man's universe is conceptually
presented on the cover of this report. It is symbolic not only of the growing
role of nucleonics in space exploration
but of the dynamic and limitless potential of
the wonder element, uranium.

DENISON MINES LIMITED

1961 ANNUAL REPORT

OFFICERS

STEPHEN B. ROMAN
President

A. W. STOLLERY, B.Sc.
Vice-President

HARRY A. WILLIS, Q.C.
Vice-President

JOHN KOSTUIK, B.Sc.
Vice-President and General Manager

JOHN C. PUHKY
Secretary-Treasurer

E. B. McCONKEY, C.A.
Asst. Secretary-Treasurer

DIRECTORS

JAMES F. CROTHERS
STEPHEN B. ROMAN
F. H. JOWSEY
A. W. STOLLERY, B.Sc.
GEO. C. KNOWLES
J. S. WILLIAMS, Q.C.
LOUIS R. PERINI
HARRY A. WILLIS, Q.C.
B. E. WILLOUGHBY

DENISON MINES LIMITED

SOLICITORS

FRASER, BEATTY, TUCKER, McINTOSH & STEWART
Toronto, Ontario

AUDITORS

AMPLEFORD, BROADHEAD & CO.
Toronto, Ontario

BANKERS

THE ROYAL BANK OF CANADA
Toronto, Ontario

REGISTRAR AND TRANSFER AGENT

GUARANTY TRUST COMPANY OF CANADA
Toronto, Ontario

EXECUTIVE OFFICE

4 King Street West, Toronto, Ontario

MINE OFFICE

Elliot Lake, Ontario

To The Shareholders:

I take great pleasure in presenting the report of your Directors on the affairs of the Company for the year ended December 31st, 1961. The Summary of Operations by the Company's Vice-President and General Manager, together with the Financial Statements as reported on by the Company's auditors, are included herewith.

The past year has been one of healthy achievement by your Company and the progress recorded herein indicates a solid foundation for continued growth in the future. The year's results show higher earnings from uranium production, continued control of costs and your Company's successful entry into other industries.

Net profit for the year amounted to $14,129,801 or $3.16 per share. Profit before write-offs was $33.7 million, an increase of 10% over the preceding year.

DIRECTORS' REPORT

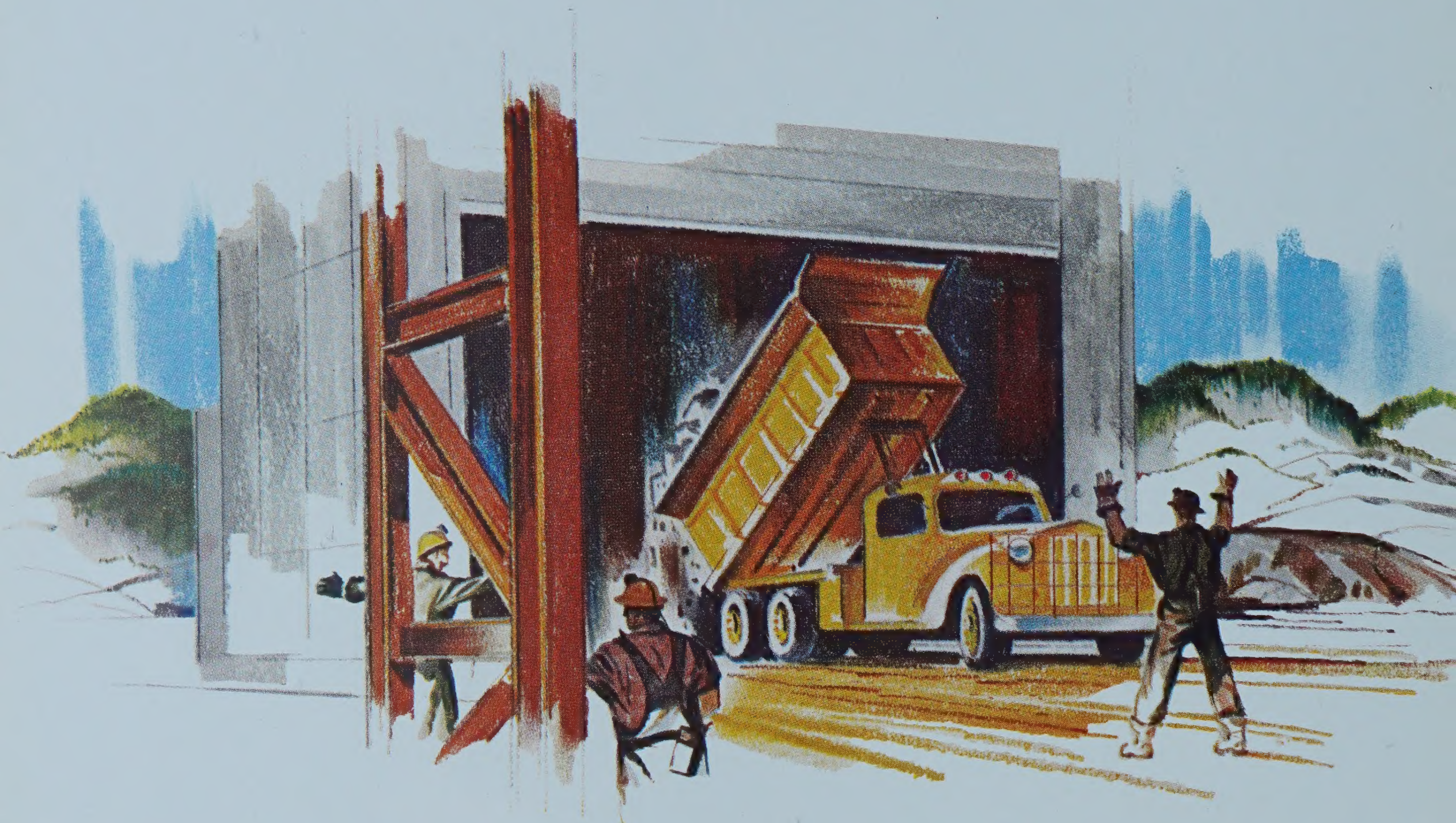
During the year, your Company maintained a strong financial position and at December 31, 1961 working capital was $33.9 million. On December 29th all remaining 5% Series "B" Bonds outstanding in the amount of $8,077,500 were called for redemption at par. As a result of this and the repurchase of Mortgage Bonds, on the open market, long term debt was reduced by $12.9 million.

Two dividends of 50¢ each were paid in 1961 on the outstanding shares of the Company, representing a total payment of $4,474,703.

The existence of a Letter of Intent between the United Kingdom and Canada for the delivery by Canada of 24 million pounds of U_3O_8 between March 31, 1963 and December 31, 1966 was announced by the Canadian Government early last year. It is believed that the Canadian Government will soon allot this poundage to the producing companies. Denison will benefit from its anticipated participation.

STEPHEN B. ROMAN
President

Advances in the use of uranium continued to multiply at a steadily progressive rate. The decision by Pacific Gas & Electric Company to have General Electric build a 325-megawatt boiling water type reactor at Bodega Bay, California, is expected to result in the production of electricity at slightly over 5.5 mills per k.w. hour. The world's largest ship, the



carrier "Enterprise" is powered by 8 atomic reactors, and fuel loading of the "Savannah", the world's first atomic powered cargo-passenger ship, was completed.

Additionally, research programmes for non-nuclear applications of uranium, instituted previously by Government and private industry, continued apace in 1961. Denison Mines Limited has co-operated, through the Canadian Uranium Research Foundation, with the Mines Branch of the Department of Mines and Technical Surveys, Ottawa, in research into the non-nuclear uses of uranium. The major effort has been

concentrated on alloying uranium with steel. The commercial evaluation of uranium-bearing steel is now under study at several large steel companies, on many different items, and we are looking for future results with confidence.

During the year, your Company participated in the supply of 75,000 pounds of uranium to fuel the Douglas Point Nuclear Power Station being constructed by Atomic Energy of Canada Limited and from which power is scheduled for delivery in 1965.

You were advised in our 1960 half-yearly report that the expected cash generation from the Company's existing uranium contracts would be $15.37 per share after debt retirement. Your Directors are confident that actual results will be even more gratifying.

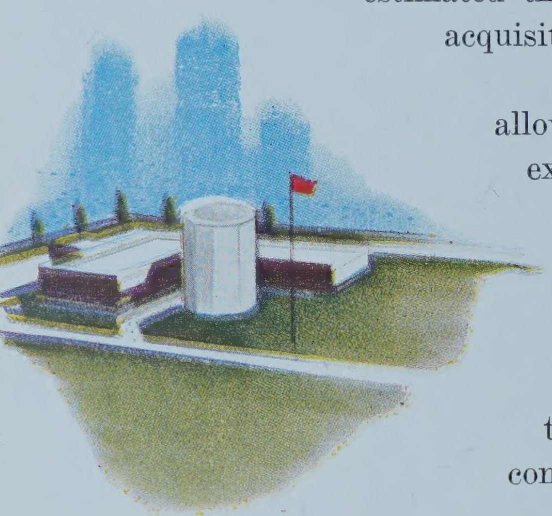
The continued growth of the Company is a primary aim of your Management. The value to you of such growth will be measured by the continuance of profitable operations for years to come. The period just ended was noteworthy in your Company's history with a number of steps being taken which should contribute materially to the achievement of this goal.

A significant development was the purchase of 750,000 common shares of Lake Ontario Portland Cement Company Limited with an option running to January, 1964 to purchase a further 350,000 shares. Your Company's initial investment in this rapidly developing operation, producing cement and allied products, represents 30% of its currently-issued common shares. Attractive features of this company include its location on large limestone reserves sufficient to support capacity operations for 40 years and low cost transportation of its products by water to points in Canada and the United States. Plans for expansion of its productive and distributing facilities are well advanced at this time.

In its fiscal year ending November 30, 1961, Lake Ontario Portland Cement attained record sales and earnings. Cement sales were 31% higher than in the preceding year and net profit of $912,000 exceeded the previous year's results by $700,000.

As a parallel development, your Company, through a wholly-owned subsidiary, purchased the assets of three ready-mixed concrete and aggregate companies, the latter including large sand and gravel deposits adjacent to Metropolitan Toronto. These acquisitions, supplemented by a modern ready-mix concrete plant under construction on the lakefront in Toronto, provide an excellent entry into this major concrete and aggregate consumption area.

During 1961 the Company acquired proven oil reserves on Crown Land parcels at sales in the Province of Alberta. At the year's end, with a successful drilling programme nearing completion, the Company's engineers estimated the primary recoverable reserves on the Company's land acquisitions, to date, at 9,610,000 barrels with secondary reserves at least equal to those of the primary. Based on July allowables, which have since been increased, the Company expects a return of 18% on its investment.



A substantial interest was acquired in an immense deposit of phosphate and brine in Peru. The economics of the deposit are currently being analyzed to determine its commercial potential. We believe that this investment will be a valuable asset and should contribute significantly to future cash flow.

The Company's Exploration Division is continuing its search in Canada and elsewhere for economic mineral deposits and several have been selected for additional work.

I wish to acknowledge the sustained effort and co-operation of the staff and employees during the past year, and in particular the contributions of Mr. Harry A. Willis, Q.C., Vice-President; Mr. John Kostuik, B.Sc., Vice-President and General Manager; Mr. John C. Puhky, Secretary-Treasurer and Mr. E. B. McConkey, C.A., Assistant Secretary-Treasurer. The continued loyalty and confidence of the shareholders is also gratefully acknowledged.

On behalf of the Board of Directors,

Toronto, Ontario,
January 12, 1962.

STEPHEN B. ROMAN,
President.


EXPLORATION
TRANSPORTATION
MINING
INDUSTRIAL POWER
PROCESSING
HEALTH

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AS AT DECEMBER THIRTY FIRST,

ASSETS

Current Assets		
Cash in banks	$ 686,661	
Short term notes — at cost	1,550,000	
Marketable securities — at cost (quoted market value $4,453,017)	4,248,216	
Accounts receivable including concentrate settlements	2,626,521	
Loans receivable (secured) due within one year	276,000	
Concentrates produced for delivery under firm contract with Crown corporation — at net sales price	33,195,631	
Supplies — at cost	2,816,866	$45,399,895
Investment in shares of other companies, at cost, including shares costing $2,417,910 with a quoted market value of $3,008,912		5,042,911
Loans receivable (secured), not including amounts due within one year		563,838
Land, buildings, equipment, oil leases and mining properties, at cost, less accumulated depreciation and depletion of $55,437,455		19,457,581
Other Assets		
Prepaid and deferred expenses	421,593	
Deferred development and preproduction expenditure, less amounts written off	3,095,509	
Expense of bonds issued, less amounts written off	445,919	3,963,021
		$74,427,246

Approved on behalf of the Board of Directors:

HARRY A. WILLIS, Director.

GEO. C. KNOWLES, Director.

DATED

Sheet **DENISON MINES LIMITED**

AND ITS SUBSIDIARIES

TEEN HUNDRED AND SIXTY ONE

LIABILITIES

Current Liabilities		
Accounts payable and accrued charges	$ 2,033,441	
Unclaimed dividends	34,449	
Long term debt due within one year	3,944,412	
Provision for Ontario mining tax	5,442.536	$11,454,838
Advances against concentrates to be delivered under firm contract with Crown corporation		5,400,000
Long Term Debt (not including amounts due within one year)		
4½% Second Mortgage Sinking Fund Bonds, Series B, due December 15, 1962-1963	3,835,500	
General Mortgage Bonds, non-interest bearing, due April 15, 1964	1,937,700	
First Mortgages on dwelling units	1,245,350	7,018,550
Shareholders' Equity		
Capital stock		
Authorized:		
6,000,000 shares of $1.00 par value each	$ 6,000,000	
Issued and fully paid:		
4,474,703 shares	4,474,703	
Earned surplus	42,489,022	
Contributed surplus	3,590,133	50,553,858
		$74,427,246

The accompanying notes are an integral part of this Consolidated Balance Sheet and should be read in conjunction therewith.

The Auditors' Report to the Shareholders is attached hereto.

CONSOLIDATED STATEMENT OF EARNED SURPLUS

FOR THE YEAR ENDED DECEMBER 31, 1961

Balance at January 1, 1961		$33,377,676
Net profit for the year		14,129,801
		47,507,477
Deduct:		
Dividends paid	$4,474,703	
Bond issue and redemption expenses written off, less discount on bonds repurchased	543,752	5,018,455
Balance at December 31, 1961		$42,489,022

CONSOLIDATED STATEMENT OF OPERATIONS

FOR THE YEAR ENDED DECEMBER 31, 1961

Operating profit before items shown below		$37,139,922
Revenue from investments		442,304
		37,582,226
Deduct:		
Interest on long term debt	$ 943,500	
Directors' fees	22,925	
Provision for Ontario mining tax	2,825,000	3,791,425
Profit before write-offs		33,790,801
Provision for depreciation and depletion	16,851,000	
Deferred development and preproduction expenditure written off	2,810,000	19,661,000
Net profit for the year		$14,129,801

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

DECEMBER 31, 1961

1. Included in this consolidation are the accounts of the company's wholly-owned subsidiaries as at December 31, 1961 and the results of their operations for periods ended on that date.

2. Under the provisions of the Deeds of Mortgage and Trust securing the Mortgage Bonds which are payable by the company dividends on the company's capital stock (except stock dividends) may not be declared or paid unless after payment of the dividends the company's net current assets (as defined in the Deeds of Mortgage and Trust) are not less than $5,000,000.

3. The company is obligated to issue under a Deed of Trust and Mortgage, following retirement of the presently outstanding Mortgage Bonds which are payable by the company, non-interest-bearing debentures as collateral security for amounts then outstanding with respect to advance payments received from Eldorado Mining and Refining Limited.

4. The attached consolidated balance sheet does not reflect an outstanding commitment to make deposits totalling $439,200 over the four years 1962 to 1965, inclusive, in respect to housing facilities for employees and it does not reflect certain amounts claimed by Central Mortgage and Housing Corporation in respect to rental housing units. The company is disputing the claim which, if payable, would amount to $374,400 at December 31, 1961.

5. The basis for providing for depreciation of fixed assets and amortization of deferred development expenses is, with reference to the assets of the company located at its mine properties, such as to allow the complete write-off of these expenditures during the

period of production under present sales contracts and is, with reference to other assets of the company and those of the subsidiaries, such as to allow for write-off over their estimated useful lives.

6. It is estimated that there is no liability for income taxes for the year, except Ontario mining tax, because of deductions permitted for tax purposes.

7. The provision for Ontario mining tax is stated at maximum amounts in accordance with the basis on which the company was assessed for the year 1958. It is possible that, as a result of current procedures before the Ontario Municipal Board, such taxes may be substantially less than stated.

AUDITORS' REPORT

AMPLEFORD, BROADHEAD & CO.

CHARTERED ACCOUNTANTS

To The Shareholders,
Denison Mines Limited.

We have examined the consolidated balance sheet of Denison Mines Limited and its subsidiaries as at December 31, 1961 and the consolidated statements of operations and earned surplus for the year ended on that date. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances. We have relied upon the reports of auditors of certain subsidiaries whose accounts have not been reviewed by us.

We report that, in our opinion, the attached consolidated balance sheet and accompanying consolidated statements of operations and earned surplus present fairly the financial position of Denison Mines Limited and its subsidiaries as at December 31, 1961 and the results of their operations for the year ended on that date, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding fiscal period.

Ampleford Broadhead & Co

Toronto, Canada,
January 11, 1962.

CHARTERED ACCOUNTANTS.

GENERAL MANAGER'S

SUMMARY OF OPERATIONS

The President and Directors,
Denison Mines Limited,
4 King St. West,
Toronto 1, Ontario.

Gentlemen:

The following report reviews the operations at the Denison Mines Limited property at Elliot Lake. Ontario, for the period ending December 31, 1961, together with a summary of the work accomplished in the other Divisions.

ELLIOT LAKE OPERATION

The year 1961 has seen progressive attainment of the production and performance targets set at the end of the previous year. The concentrator operated at capacity throughout the year, with the exception of the annual holiday shut-down taken this year in the last week of July and the first week of August. A marked improvement in the grade of ore treated from 2.70 lbs. U_3O_8 per ton in 1960 to 2.85 lbs. U_3O_8 per ton in 1961 was accompanied by a reduction in operating and capital costs. A major success in accident prevention rounded out the highlights.

In addition to the second step of the 1960 union agreement of a 5¢/hour wage increase, substantial unit cost increases occurred over which the company had no control. These included an upward re-assessment of Workmen's Compensation (18¢/ton), Provincial Sales Tax, group insurance premiums, import duty on parts and material price increases. The development and use of performance standards, in operating and maintenance; budgetary control and daily costing and research developments absorbed these increases and a further reduction in the operating cost of $0.33 per ton was realized.

SUMMARY OF PRODUCTION

	1958	1959	1960	1961
Tons ore broken	1,897,870	2,189,316	2,021,643	2,043,946
Tons ore milled (dry)	1,861,229	2,046,250	*2,013,846	*2,033,483
Average tons milled per day (dry)	5,101	5,672	5,787	5,827
Percent recovery	92.37	93.55	93.04	93.18
Pounds U_3O_8 produced	4,239,761	4,916,108	4,911,761	5,379,168
Average pounds U_3O_8 per ton	2.46	2.56	2.70	2.85

*Plant shut-down for annual holiday.

MINING

A total of 2,032,911 tons was hoisted, 964,436 tons from No. 1 Shaft, 1,068,475 tons from No. 2 Shaft. A total of 53,941 lineal footage was driven, in headings of various sizes, 97% in ore. Positive reserves of 2,800,000 tons with a known grade were maintained.

Conveyor extensions totalled 1179 feet. The first 600 feet of the north-east conveyor axis was being erected at year's end. Axis "A", the present north-south conveying system between the two shafts will have reached its limits of economic haulage late in 1962. In view of this, a new north-south system, the Axis "B", has been commenced some 3100 feet from Axis "A". It is scheduled for completion in 1963 and through it will be conveyed several years of production.

Approximately one-third of all ore was scraped directly from stopes to conveyors for transportation to the production shafts. This has proven to be an efficient, low-cost haulage method. Mining costs were 5% per ton or 11% per pound U_3O_8 lower in 1961 than in 1960.

Cost savings will continue as a result of refinement of maintenance standards; with methods improvements in development headings, in conveying and scraping, and with the conversion of the mine to the use of AN.FO (Ammonium-Nitrate — Fuel Oil) blasting agents.

Rock mechanics studies have enabled the engineering staff to plan layouts on a sound technical basis and this work will be broadened.

The primary fans have been relocated at No. 1 Shaft to improve effectiveness of the ventilation system. An additional 4,000,000 BTU heating plant was erected at No. 2 Shaft to handle the increased air-flow.

MILLING

A total of 2,033,483 dry tons of ore was treated for a daily average of 5,827 dry tons as compared to 5,787 dry tons for 1960. Average recovery increased to 93.18 from 93.04%.

Cost savings of 9% per ton of ore or 15% per lb. U_3O_8 were gratifying and were accomplished as a result of a decrease in reagent consumption based upon studies by the metallurgical staff as well as in the cost of maintenance labour and supplies. Metallurgical test work will be intensified to further reduce reagent costs.

Ingot bars of test uranium alloy steel were placed in various areas of the mill to test their resistance to corrosion. The three test sites selected were in the roof steel area of the leaching section, in the structural steel supporting the acid disc filter conveyor belts and in the weak eluate tank in the ion-exchange area. The sites were selected on the basis of the high rate of corrosion prevalent in these areas.

In a consecutive year, examination and maintenance, impractical during plant operation, was done during the holiday shut-down July-August.

EMPLOYEES AND COMMUNITY

Relations with our employees during the year continued to be harmonious and undisturbed. Greater stability was evinced by a marked reduction in labour turnover, particularly in the underground force. Labour turnover averaged 4.7% for all departments. Our employees continue to enjoy a sound wage and salary program which, with the various benefits, provide maximum security not only for them but for their dependants.

Mine personnel, with assistance from Management, has guided the development and successful use of recreational facilities for themselves and for the community of Elliot Lake.

The educational programs, including three university scholarships, instituted last year to encourage employee development were continued. They are found to be of major benefit both to the company and to the employees.

The last of the dormitories for hourly rated employees situated at the property was closed during the year. Only those senior staff members whose responsibilities are on a full-time basis remain at the minesite in homes provided by the company.

Continual stress was placed on safety and accident prevention throughout the year. All possible means of promoting safety were used; its education was emphasized not only on, but also off, the property. Results were most gratifying with a decrease of 49% in compensable accidents and 45% in frequency.

Special mention must be accorded to our house organ "The Nucleus". Its expressive methods of communication have been honoured by awards from the Canadian Industrial Editor's Association and the Industrial Accident Prevention Association of Ontario.

OTHER DIVISIONS

OIL

In the past year Denison Mines Limited has acquired six parcels of land of one-half section each in the Province of Alberta, three of which are in the Swan Hills district and three in the Judy Creek district. Under the present provincial conservation policy one well is drilled per quarter section and production is based upon an allowable flow which varies from month to month. In December the quota was 78 barrels per day per well in Swan Hills and 84 barrels per day per well in Judy Creek. Quota production upon completion of the twelve wells is estimated at 29,000 barrels per month. In December 19,000 barrels was obtained from eight wells.

INDUSTRIAL MINERALS

Denison has acquired a substantial interest (17½%) in an immense deposit of phosphate and brine located in the northern part of Peru, on the coastal plain in the Sechura Desert between latitudes 5° and 6°30′ South. It is close to the ocean and an excellent site for a harbour exists in a well-sheltered bay.

Phosphorite, phosphatic diatomite, and barren diatomite alternate frequently in flat-lying and unconsolidated beds providing several choices as to grade, tonnage and waste-ore ratios. Overburden varies from 0-100 feet. Phosphorite horizons show very remarkable continuity over great distances. The grade varies from 7-10% P_2O_5 for ore thickness of 100 feet to 20-28% for 6 feet. Metallurgical tests indicate that the material is amenable to concentration to a product of approximately 32% P_2O_5 by desliming, sizing, scrubbing, flotation and calcining and to 30% P_2O_5 without flotation and calcining. The phosphorite is outstanding for its high natural solubility.

Below the surface sands, tremendous volumes of brine occur particularly rich in chloride, potassium, magnesium, and low in sulphate. Contained also are large volumes of sodium, with appreciable bromine and lithium. Sampling and testing suggests an average content in the raw surficial brines of 0.7% KCL and crystallization tests in the desert, using sun and wind solely, have produced brines of 4.75% KCL; 31.4% $MgCl_2$ and 2.8% NaCl.

The economics of P_2O_5 production, in addition to a variety of salts from brines, are extremely attractive on the basis of preliminary work. This acquisition has all the earmarks of becoming a valuable asset to the Company.

BUILDING MATERIALS

Complementing a 30% acquisition in Lake Ontario Portland Cement, previously reported upon, Lockyer Ready Mixed and Materials Limited, a wholly-owned subsidiary of Denison Mines Limited, was formed to engage in the production and marketing of ready-mixed concrete and aggregates as part of the diversification programme. During the year this subsidiary acquired the plants and gravel deposits of three companies in the Toronto suburbs. Our main efforts in this regard were directed towards the improvement of existing facilities and building a modern plant in downtown Toronto.

A small operating profit was made in this period by Lockyer Ready Mixed and Materials Limited, despite serious labour unrest in the building trades. Your Company looks forward to greater stability in the construction industry and improvements in earnings.

EXPLORATIONS

The Explorations Division has participated actively in examination of properties throughout Canada in search for metallic and industrial minerals. Claims were staked in seven areas and intensive exploration was conducted on eighteen properties. Results of this work have located one iron property, two of base metals and one of industrial minerals, all of which have merit and will be more thoroughly studied by geophysical and diamond-drill methods.

ACKNOWLEDGEMENTS

My appreciation is extended to the heads of departments, their staffs and to all employees for their continued efforts and loyalty. I draw to your attention, in particular, the capabilities of Mr. M. J. de Bastiani, Mine Manager; Mr. E. Futterer, Assistant Mine Manager; Mr. F. C. Lendrum, Mill Superintendent; Mr. R. E. Hamilton, Mine Superintendent; Mr. L. R. Montpetit, Chief Purchasing Agent; Mr. A. F. Risso, Mine Accountant; Mr. N. W. Gillick, Master Mechanic; Mr. A. F. Russell, Electrical Superintendent; Mr. C. B. Banks, Personnel Manager; Mr. E. Wilson, Chief, Industrial Engineering; Mr. D. Laschuk, Chief Mine Engineer.

It is with deep regret and loss that I record the untimely death of Mr. D. Angus, our Consulting Metallurgist, who so splendidly contributed to our development.

I express also my thanks and appreciation to the President and Directors for their continued support and confidence.

Respectfully submitted,

JOHN KOSTUIK,

Vice-President and General Manager.

Toronto, Ontario,

January 12, 1962.

HORIZONTAL PLATE OF MINE WORKINGS INDICATING PROGRESS FOR INDIVIDUAL YEARS 1956-1961.
EACH SQUARE REPRESENTS 1,000 FT. BY 1,000 FT.

Printed in Canada